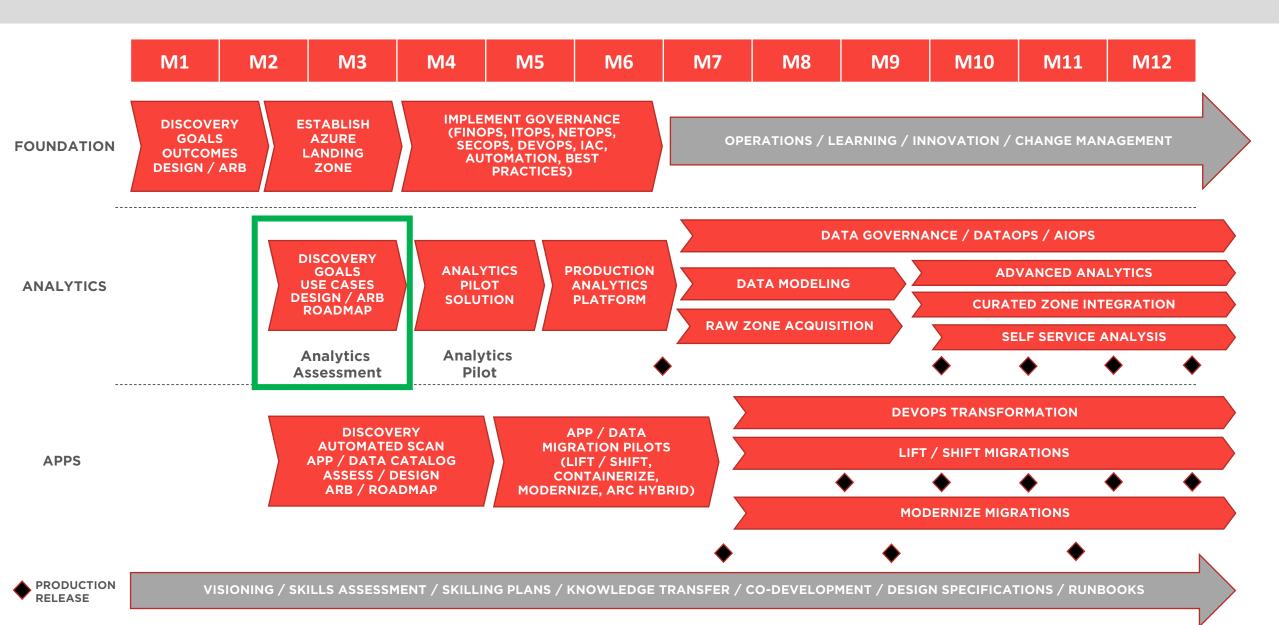


Microsoft / Adastra Getting Started Offers



Azure Modernization Roadmap





Azure Analytics Assessment

Evaluate current analytics state. Define new analytic goals. Design a modern analytics cloud architecture and roadmap, with Azure and Services costing, to achieve analytic goals.

- Perform analytics current state discovery and determine future analytics goals
- Define prioritized analytics use case backlog
- Vision analytics architecture options aligned to use cases /w relevant decision matrix
- Decide and define future state Azure service architecture
- Define future state Azure network architecture aligned to service architecture
- Estimate Azure run cost for future state architecture
- Identify technical governance approach for security, dlp, bc/dr, recovery, monitoring, and devops
- Define roadmap / plan / costs to achieve future state analytic goals (aligned to use case prioritization)
- Define operations team structure / skilling / costs to operate future platform
- Define and plan pilot solution



Assessment Deliverable Examples



Discovery



- Primary Data Center: Montreal / Global: each campus might have their own data store
- Key Source Systems: Dynamics 365 (CRM), Sage 300 (Montreal Finance, each campus varies), Clara(Student ERP), Dayforce (HR), Kyriba (Montreal Only Financial Forecasting), OneStream, SharePoint (Document Management), Office 365



- Existing Office 365 E3, moving to E5, including Azure Active Directory
- Azure Private Zone is independent from on-prem zone, existing product : Azure VMs
- Use VPN to connect to Azure Private Zone



Data **Pipelines**

- SSIS packages used for ETL pipelines mainly
- OneStream has its own integration method
- OneStream reporting is for Operational and Data Vault should be used for analytical purpose



- Azure VNET contains 3 zones, Dev, Stage, Prod, and each zone contains Data subzone and App subzone.
- Site to Site tunnel with separate VPN is used to connect between zones
- Azure only hosts Azure VM

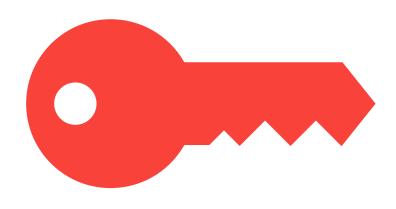


Analytic Challenges

- No unified solution across different areas (campuses, countries, continents)
- No mature and easy solution to fast merge newly acquisition's data with existing platform
- Potential change to existing ERP system
- Lack of modern features (due to aged technology platforms) prevent efficient and simple data discovery / insights
- Lack of modern tooling / approach prevents agile and quick response to analytic requests
- Missing integrated data catalog / data lineage solution to facilitate data exploration, data discovery, and data tracing
- Missing data governance framework (master data, data quality, reference data) leads to disparate tactical solutions
- Inconsistent Enterprise Model approach causes delays serving data for analytics
- Inconsistent BI Model approach prevents effective self service analytics
- Lack of single version of truth for data and KPI's, leading to inconsistent analytic results across reports
- Missing toolsets / skilling for advanced analytics, preventing BI maturity advancement



Analytic Goals



- Self service data exploration and analytics development
- Data as a Service unified environment facilitating KPI Reporting / Dashboards
- Established repeatable governance standards, patterns, and processes
- Centralized data definitions and data quality to ensure data is fit for purpose / secure
- Analytics Centre of Excellence for data steward / IT collaboration to realize value from data
- Decommissioning of the legacy data warehouse via new EDSP hybrid Azure environment
- Deliver data that is trustworthy, reliable, timely, complete, clean, and single version of truth
- Support structured, semi-structured, and unstructured data types
- Support real-time ingestion patterns



Data Mesh Decisioning

	Centralized DaaS	Data Mesh					
Governance Ownership	IT	IT					
Data Domain Ownership	IT	LOB					
Analytics Ownership	LOB	LOB					
Analytics Environment	Sandbox	Node					
LOB Flexibility	Lower	Higher					
IT Dependency	Higher	Lower					
Chargeback Model	Indirect (thru IT)	Direct					
Data Warehouse	One	Multiple					
Enterprise Analytics Complexity	Lower	Higher					
Technical Debt	Lower	Higher					
Governance Risk	Lower	Higher					
Data Catalog Role	Zones	Nodes and Zones					
Enterprise Cost Optimization	Simple	Complex					



Azure Data Zoning

Adastra recommends implementing data zones for analytics, in Azure. Enables Lake House approach.

IT Professionals / Data Scientists will access data from any zone, depending on the use case.

Business Analysts will access data from the provisioned zone only, using no code Power BI.

Provisioned zone will be fed from Curated Zone for integrated analytics, and from Raw Zone for operational analytics.

CREATE DATA PRODUCTS (CENTRALIZED DAAS: IT, DATA MESH: LOB)

Raw Zone

Data stored in source schema structure with no transformation.

Varying formats for data storage (parquet, sql, csv, orc, dat, json, xml, ...).

Data stored in data lake.

Low effort to implement.

Accessed by IT Professionals.

Standardized Zone

Data stored in source schema structure with limited transformation.

Common format for data storage (i.e. parquet, sql).

Data stored in data lake / delta lake / polybase table.

Low effort to implement.

Accessed by IT Professionals
/ Data Analysts / Data
Scientists.

Curated Zone

Data stored in Enterprise model schema with significant integration / transformation.

Common format for data storage (i.e. parquet, sql).

Data stored in delta lake / sql table.

High effort to implement.

Accessed by IT Professionals
/ Data Analysts / Data
Scientists.

Provisioned Zone

Data stored in BI model schema aligned to self service analytics, by subject area..

Common format for data storage (i.e. sql table, tabular model).

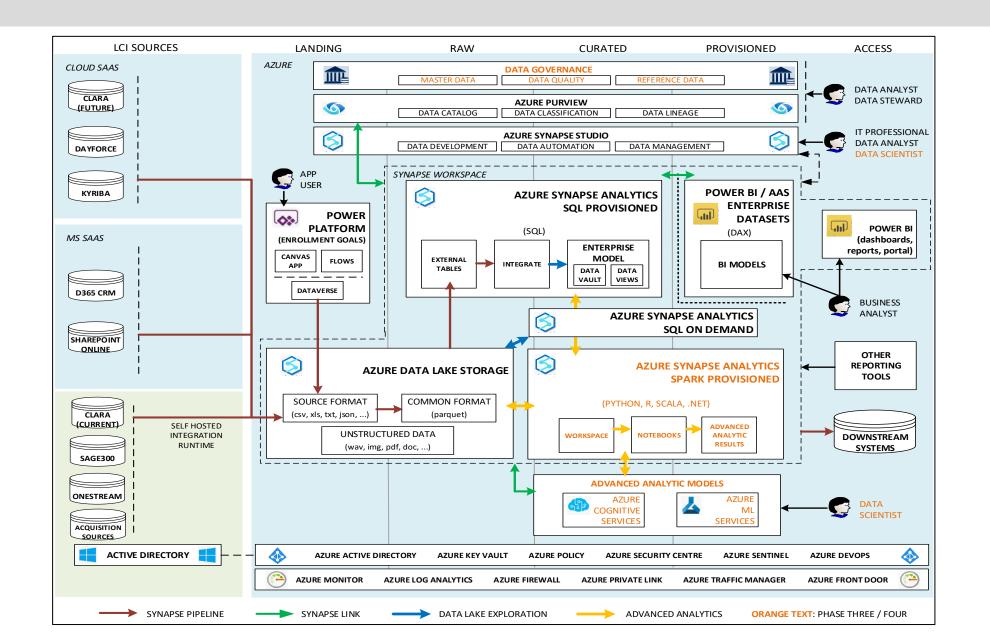
Data stored in BI model hosted by Power BI.

Medium effort to implement.

Accessed by Business Analysts.

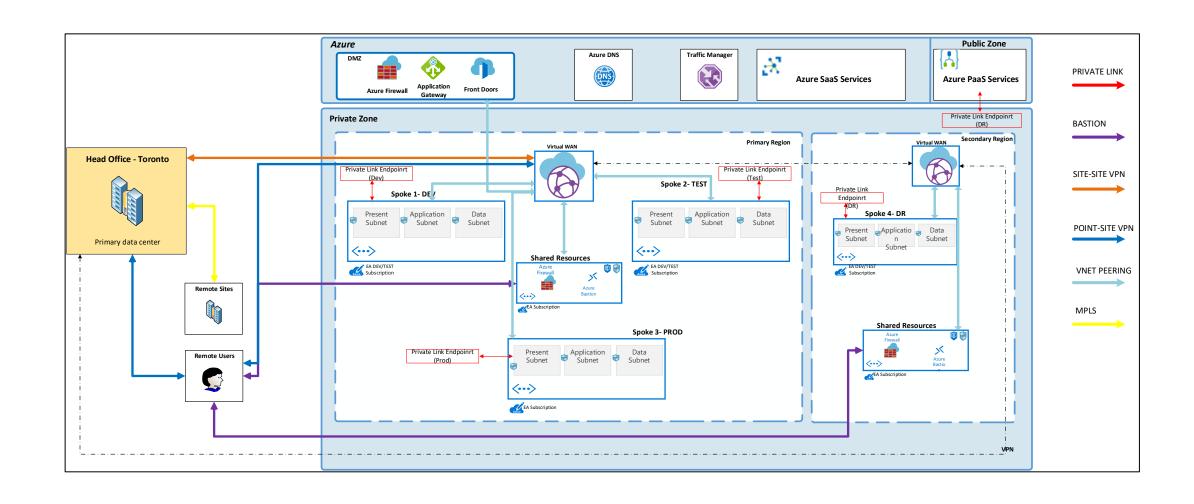


Azure Service Architecture



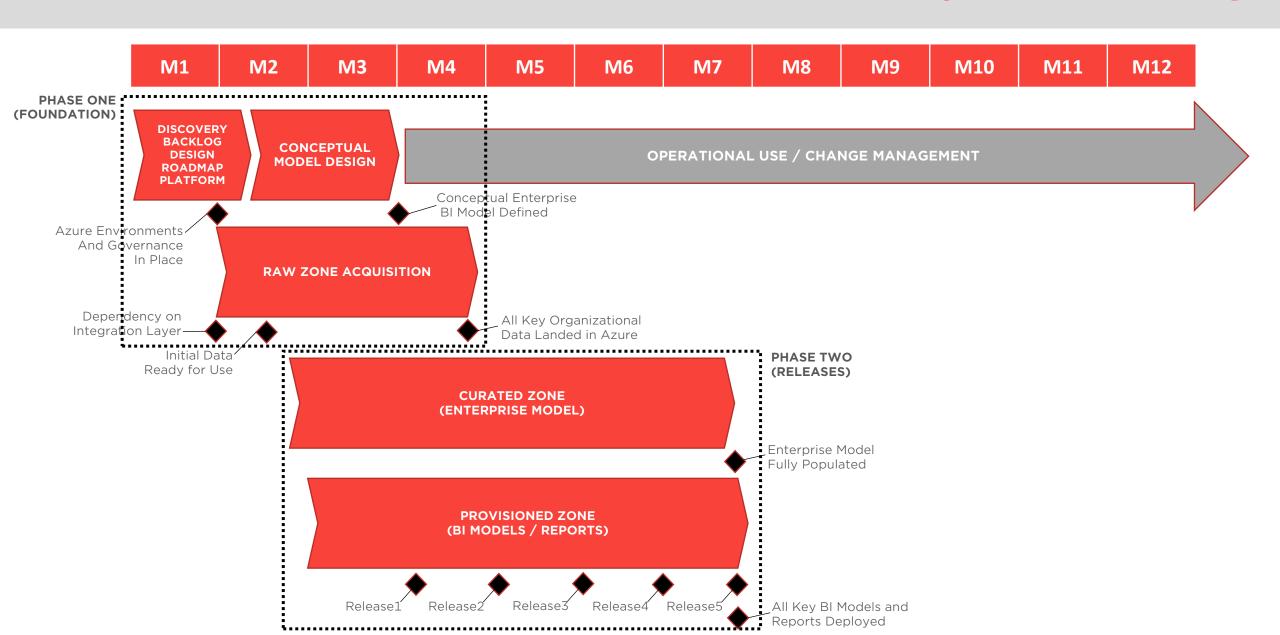


Azure Network Architecture





Analytics Roadmap





Azure Cost Management

- Implement right service / right tier for workload
- Estimate well and verify
- Track consumption by application
- Monitor / alert on consumption costs mid month
- Switch to 1 year / 3 year commits after 6 months
- Leverage Azure Hybrid Benefit in PROD
- Leverage Azure Dev / Test Subscription in PREPROD
- Pause compute, via automation, whenever viable
- Avoid egress / peering costs by grouping dependent systems
- Choose lower cost service tiers whenever viable





Azure Pricing

Service Type	Monthly Estimate						
Azure Governance	\$255						
Azure Analytics (PROD)	\$3,080						
Azure Analytics (PREPROD)	\$1,025						
Power Platform (25 users)	\$250						
Monthly Total	\$4,610						

1 Year Ramp									RI)	5 Year Ramp (RI)											
M1	M2	М3	M4	M5	M6	M7	M8	M9	M10	M11	M12	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5
1250	1750	2250	2750	3200	3750	4250	4610	4610	4610	4610	4610	42250	44350	46580	48900	51355	25350	26610	27950	29340	30810

Azure cost can be further reduced, from \$4,610 / month, to \$2,850 / month, by switching from "Pay As You Go" to "3 Year Reserved Instance (RI)". Adastra recommends LCI use Pay As You Go pricing for the first 3 months, then switch to 3 Year Reserved.



Operating Roles

Support Lead (0.5)

- Responsible for the overall operation of the Azure PaaS environment
- Responsible for maintaining Azure PaaS governance alignment (security, change management, ...)
- Advanced technical knowledge of the Azure PaaS services and ecosystem
- Advanced understanding of source systems and data subjects delivered through BoC Platform
- Facilitate resolution for complex issues that support analysts could not resolve
- Experience working with Microsoft Support to resolve complex Azure issues / tickets
- Deliver training to support analysts to enable environment administration
- Deliver training to business analysts to enable BoC Platform interaction / adoption
- Stay abreast on Azure PaaS service roadmap and potential BoC Platform impacts
- Engage early and work with build teams to manage BoC Platform access and change through to production



- Responsible for issue monitoring / issue resolution for the Azure PaaS environment
- Understand governance standards and align activities to them
- Good technical knowledge of the Azure PaaS services and ecosystem
- Good understanding of source systems and data subjects delivered through BoC Platform
- Experience working with Microsoft Support to resolve Azure issues / tickets
- Guide business analysts to achieve successful BoC Platform interaction / adoption
- Work with build teams to manage BoC Platform access and change through to production



Skilling Plan

