M2M Service Enablement
> MIM Services

Leveraging the MIM to help Network Operators differentiate in the M2M Market
The M2M industry stands at a very important inflection point in its growth. Analysts are predicting phenomenal growth in connection numbers in the coming years. This presents mobile network operators with several opportunities as well as challenges. How can I offer a clearly differentiated network solution, while still maintaining quality and profitability? In addition, how can I engage with a higher value share in this low ARPU business? Gemalto/Cinterion, with their expertise in M2M and Over-the-Air services, have designed and developed innovative solutions that can help MNOs tackle some of these challenges.

Gemalto/Cinterion provides network operators with a comprehensive end-to-end solution to manage their own assets as well as those of their customers during the long lifecycles of M2M devices.

Leveraging the ubiquity, security and programming capabilities of the MIM, we have designed solutions that will help clearly differentiate your offerings to customers while also reducing costs and the complexity of deploying a M2M solution.

Using our 15 years of expertise with wireless modules, we perform extensive end-to-end testing to ensure our solutions work seamlessly with your customers’ devices. By combining our flexible modular deployment options with industry standard Web Services, integration into your customers’ systems is simple.

Why Gemalto/Cinterion for M2M?

Gemalto is uniquely positioned to help network operators add value to their M2M Solutions. With the proven expertise of Gemalto in designing and deploying Over-the-Air services coupled with the M2M industry knowledge of Cinterion, we can help you create clear differentiators in your offerings. In addition, our solutions will help you reduce costs and provide you the necessary tools in this complex M2M environment.

Our involvement with prominent public and standardization bodies are key indicators of our competence.
## USE CASES

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<th>Audit/Monitoring</th>
<th>Diagnostics</th>
<th>Anti-Fraud</th>
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<td><strong>MIM Usage Monitoring</strong>&lt;br&gt;A lift operator uses your network to remotely monitor elevators. An incorrect device implementation leads to extraordinary writes on the MIM. This inappropriate usage of your MIM leads to service failure for your customer and brand erosion for you.</td>
<td><strong>Service Quality Monitoring</strong>&lt;br&gt;An industrial metering company deploys a solution using your network to monitor key variables of manufacturing equipment in remote factories. Due to low network availability, they often complain of service failures. In addition, uncontrolled high temperature operating environments mean they face service failure often.</td>
<td><strong>Restricting Usage</strong>&lt;br&gt;A traffic light monitoring system is experiencing significant fraud due to vandalism and stolen SIMs. This causes service failure for the system and the thieves often use these SIMs to make calls worth thousands of dollars, causing significant financial damage.</td>
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<td><strong>Solution:</strong>&lt;br&gt;Regular MIM audits allow you to detect inappropriate MIM usage and preempt service failure. Audit alerts or campaigns, especially during the initial phases of your customers deployment, can help you significantly improve quality of service</td>
<td><strong>Solution:</strong>&lt;br&gt;Using the programming capabilities of the MIM, it is possible to monitor and report out of SLA operating environments. Business logic can be easily developed to contact support staff each time the device goes below a certain signal strength, or when operating temperature goes outside of previously agreed SLAs</td>
<td><strong>Solution:</strong>&lt;br&gt;Using lock features on the MIM, your customers can ensure that their MIMs are only used in the correct devices. Several other services like call barring, SMS barring and location monitoring allow your customers to keep a close watch on their assets and minimize financial risks due to fraud.</td>
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<td><strong>Benefits for MNO’s:</strong>&lt;br&gt;&gt; Increase QOS&lt;br&gt;&gt; Police SLAs&lt;br&gt;&gt; Improve customer experience</td>
<td><strong>Benefits for MNO’s:</strong>&lt;br&gt;&gt; Police SLAs&lt;br&gt;&gt; Identify liability of service failure&lt;br&gt;&gt; Reduce support costs</td>
<td><strong>Benefits for MNO’s:</strong>&lt;br&gt;&gt; Reduce losses due to fraud&lt;br&gt;&gt; Simplify solution deployment&lt;br&gt;&gt; Create differentiators</td>
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<td><strong>Benefits for M2M Enterprises:</strong>&lt;br&gt;&gt; Reduce and monitor risk of service failure&lt;br&gt;&gt; Identify device issues at early deployment stage</td>
<td><strong>Benefits for M2M Enterprises:</strong>&lt;br&gt;&gt; Reduce and monitor risk of service failure&lt;br&gt;&gt; Debug device issues</td>
<td><strong>Benefits for M2M Enterprises:</strong>&lt;br&gt;&gt; Reduce total cost of ownership&lt;br&gt;&gt; Reduce vandalism of devices</td>
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SOLUTION FEATURES

M2M Enterprise 1  M2M Enterprise 2  M2M Enterprise N

Platform Administration  Reporting  Web Services

M2M Services

- MIM Audit
- Diagnostics
- Anti-Fraud Services
- Services Framework

Core Infrastructure

OTA Infrastructure

Platform Administration
> User portal
> Delegate and manage access privileges for your customers

MIM Audit
> Counters on file writes and memory wear
> Campaigns to retrieve counters
> Alerts to preempt device end of life

Diagnostics
> Campaigns or Alerts to retrieve key information
> Location and Signal quality monitoring
> Remote AT command execution on the module

Anti-Fraud Services
> Call & SMS barring
> Device detection and Lock
> Device change notifications and reports

Web Services
> Web APIs for all platform features

Services Framework
> Deploy your own business logic on the MIM
> Easy to use XML based service development
> Ready to use bricks for Device, Location, Security

www.gemalto.com